


SolarTech Power Solutions

Flow batteries need to flow



12.8V6Ah

Nominal voltage (V):12.8
Nominal capacity (ah):6
Rated energy (WH):76.8
Maximum charging voltage (V):14.6
Maximum charging current (a):6
Floating charge voltage (V):13.6~13.8
Maximum continuous discharge current (a):10
Maximum peak discharge current @10 seconds (a):20
Maximum load power (W):100
Discharge cut-off voltage (V):10.8
Charging temperature (°C):0~+50
Discharge temperature (°C): -20~+60
Working humidity: <95% R.H (non condensing)
Number of cycles (25 °C, 0.5c, 100%dod): >2000
Cell combination mode: 32700-4s1p
Terminal specification: T2 (6.3mm)
Protection grade: IP65
Overall dimension (mm):90*70*107mm
Reference weight (kg):0.7
Certification: un38.3/msds



Overview

Flow batteries have a chemical battery foundation. In most flow batteries we find two liquified electrolytes (solutions) which flow and cycle through the area where the energy conversion takes place. What are flow batteries used for?

Renewable Energy Storage: One of the most promising uses of flow batteries is in the storage of energy from renewable sources such as solar and wind. Since these energy sources are intermittent, flow batteries can store excess energy during times of peak generation and discharge it when demand is high, providing a stable energy supply.

Are flow batteries a good choice for large-scale energy storage applications?

The primary innovation in flow batteries is their ability to store large amounts of energy for long periods, making them an ideal candidate for large-scale energy storage applications, especially in the context of renewable energy.

Are flow batteries scalable?

Scalability: One of the standout features of flow batteries is their inherent scalability. The energy storage capacity of a flow battery can be easily increased by adding larger tanks to store more electrolyte.

Can a flow battery be expanded?

The energy storage capacity of a flow battery can be easily increased by adding larger tanks to store more electrolyte. This is a key advantage over solid-state batteries, like lithium-ion, where scaling up often requires more complex and expensive modifications.

Are flow batteries better than lithium-ion batteries?

Flow batteries have a lower power density but can supply a steady flow of energy for extended periods (up to 10 hours), making them ideal for applications where a long-duration energy supply is needed. The “winner” in the comparison between flow and lithium-ion batteries depends on the

specific needs of the application.

How do flow batteries work?

Flow batteries can be operated similarly to fuel cells, or they can be recharged with electricity, allowing the liquids to be used repeatedly. They have advantages like the ability to scale energy and power independently and a long lifespan.

Flow batteries need to flow



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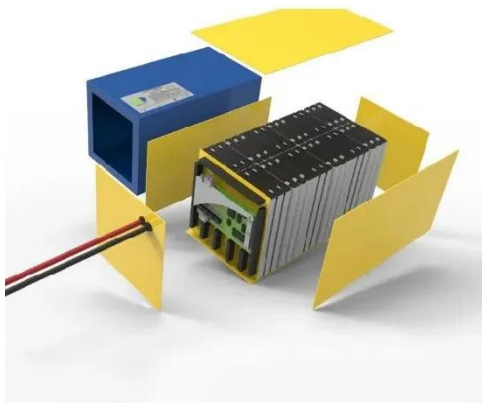


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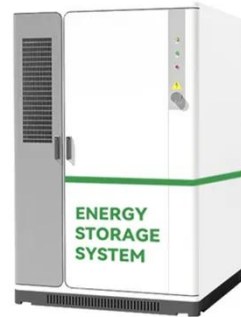
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flow of the electrolyte, the electro-active material is stored internally in the electrodes. However, for flow batteries, the ...



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